# **Erratum**

# Study: Calculation of additional profits of sectors and firms from the EU ETS

In this study one mistake has been identified and we have completed more information on which profits and costs have not been included in this study. These have been changed in the most recent version of the paper. These changes had no impact on the other numbers used in the study as they have been rightly obtained. Neither does it alter the conclusions, nor the number of total calculated profits, that were derived from this study.

Below is an account of the changes that have been made and the reason for making these changes.

## 1. Erroneous calculation on page 14 of the report.

On page 14 a paragraph is listed to what extent the overallocation to industry still prevails today. Here it is stated that (old text):

"The majority of the additional profits have been established in the years 2008-2012. Since the start of Phase 3, the difference between allocated and verified emissions has been substantially lower. Where between 2008-2012 the allocated emissions to industrial installations (including mining) were almost 30% higher than the verified emissions for the 19 countries investigated, the amount of overallocation was reduced to 1.4% in 2013/14. However, the substantial overallocation in the past still creates a problem for the functioning of the ETS market as the banked allowances are still suppressing price development of the EUAs."

To our regret, the number of 1.4% has been wrongly calculated. It appears that this number is only valid when the correction of free allowances for waste gasses used for electricity production to the iron and steel industry is ignored. However, since all the other numbers in the report include corrections for waste gasses, the particular number of 1.4% does not correspond to the rest of the analysis in the report.

The paragraph has been replaced by (new text):

"The vast majority of the additional profits have been established in the years 2008-2012. Since the start of Phase 3, companies in many countries were short of allowances and thereby reducing the earlier obtained profits from overallocation. Where between 2008-2012 the allocated emissions to industrial installations (including mining) were almost 30% higher than the verified emissions for the 19 countries investigated, allocated emissions fell short of verified emissions by 5.9% on average between 2013-14. However, the substantial overallocation in the past still creates a problem for the functioning of the ETS market as the banked allowances are still suppressing price development of the EUAs."

These changes had no impact on the other numbers used in the study as they have been rightly obtained. Neither does it alter the conclusions, nor the number of total calculated profits, that were derived from this study.



#### 2. Extension

Although the study clearly identifies which categories of profits and costs have been included in the analysis, the study is less clear on which profits and costs have not been included in this study. For clarification purposes, we decided to expand the short paragraph at the end of Section 1.3.1 (page 8).

### Old text was:

"Eventual other profits or costs associated with the EU ETS (e.g. higher electricity prices or compensations received for indirect cost price increases or profits and losses from hedging behaviour on the carbon markets) have not been taken into account in this study."

This has been replaced by (new text):

"Other costs and benefits that are generated through the EU ETS have not been quantified in this study. This includes, inter alia:

- Costs for abatement of carbon emissions.
- Costs or benefits from higher prices of inputs or auxiliary outputs (e.g. electricity and heat including cross-sectoral heat and electricity flows)<sup>1</sup>.
- Administrative costs for compliance to the EU ETS.
- Benefits from compensation of indirect emission costs, as defined in the ETS Guidelines.
- Eventual costs and benefits associated with banking and/or hedging on ETS markets.
- Eventual costs and benefits from indirect consequences, such as a shift in market shares, costs of paid dividends, impacts on the labour market, etc.
- These cost categories are not straightforward to quantify in a uniform way and treatment of these falls outside the scope of the present study. Based on the existing literature and our experience, we do expect them to be substantially lower than the three quantified categories that have been included in this study, although this may be different for individual installations or companies. Future research could be devoted into further quantifying these benefits and costs, perhaps on a case study basis."

Both changes have been passed forward in the report which has been published on our website since April 7, 2016.

Companies have received additional free allowances for heat purchased from installations that fall under an auctioning rule. Under the EU ETS Directive owners of such installations do not receive free allowances for the part of the heat that goes to an ETS consumer, as the ETS heat consumer will receive the free allowances for the heat it consumes. We have regarded these allowances as "benefits" that can be used to verify the company's own emissions. Eventual higher costs for heat deliveries that have been negotiated in these heat transfers have thus not been taken into account. A similar situation holds for companies that operate a CHP unit under their account. For the electricity part, this installation has not received free allowances. Eventual shortage in allowances have in our accounts thus been recorded as a cost to the company, while in fact the electricity most likely is delivered to the grid including coverage for carbon costs so that there have been no additional carbon costs.



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